BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CAL

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Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning, and Evaluation of Integrated Distributed Energy Resources.	Rulemaking 14-10-003 (Filed October 2, 2014)

COMMENTS OF THE CONSUMER FEDERATION OF CALIFORNIA ON THE REVISED ASSIGNED COMMISSIONER PROPOSAL FOR DISTRIBUTED ENERGY RESOURCE INCENTIVES

I. Introduction

Consumer Federation of California (CFC) hereby submits the following comments on the Revised Assigned Commissioner Proposal for Distributed Energy Resource Incentives (Proposal) attached to the Amended Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge that was issued on September 1, 2016 (Ruling).

II. REVISED REGULATORY INCENTIVE MECHANISM PILOT PROPOSAL QUESTIONS

a) *Would the attached pilot proposal accomplish its stated purpose, to test how an earnings opportunity affects the utilities' distributed energy resources sourcing behavior?*

The pilot must demonstrate both that the incentive return premium led to IOUs selecting DERs instead of traditional (or 'wires') solutions, and show that the return premium made the difference for each selection, making its benefit to the IOU (at least) equivalent to the traditional alternative. The means of evaluating the incentive against each of these objectives is not specifically described in the Proposal.

The actual testing of the premium impact is left to the institutions that will be ultimately needed to support DER integration: the Distribution Planning Analysis Group (DPAG) and the Independent Professional Engineer (IPE). These institutions will figure prominently in the eventual DER recruitment process, and rightly should develop the tests for evaluating the return premium impact. Whether a return premium is part of the eventual DER planning and selection process, the DPAG and IPE are the necessary institutions for evaluating the premium concept, and the pilot provides the opportunity for those institutions to establish themselves, and develop the necessary project evaluation methods.

The Proposal describes the selection process, with step two being the IOUs identifying "...at least two projects wherein the deployment of DERs on its system [that] could displace or defer the need for capital expenditures on traditional distribution infrastructure."[1] Presumably, this means the DPAG is ranking bids and selecting at least two for further consideration. As part of that process, "[p]rojects [would] be selected where the solicited DERs have a reasonable chance of being cost-effective. This determination shall be made by the IOU in a manner consistent with the approach to valuation recommended by the Competitive Solicitation Framework Working Group (CSFWG) in their August 1, 2016 report (CSFWG Report)."[2] Likewise, the Report describes the proposed quantitative valuation methodology:

> For quantitative valuation, Net Present Value (NPV) calculations are performed for each bid. The NPV analysis entails (1) projecting various benefits and costs streams over the life of the bid proposal, (2) applying time value of the money, and (3) estimating total net present value as present value of benefits minus present value of costs.

As CFC interprets the plan, the return premium would figure into the benefits side of the valuation, thus improving the relative attractiveness of a DER versus a 'wires solution.' If the resulting benefit/cost analysis shows a DER as the better option, it will be selected.

The pilot will allow the testing of the impact of a premium incentive on the competitiveness of DERs against the traditional alternatives. Whether the currently-proposed premium will prove sufficient to actually tip the scales in favor of the DERs remains to be seen. Again, this comes back to the matter of how the premium impact will be evaluated. The institutions performing the evaluation are well defined in the pilot proposal; however, their methods for evaluating the premium impact are not defined.

The pilot will provide useful regulatory information by demonstrating that a return premium can be found that results in a sufficient number of DER bids being competitive with their wires alternatives. Ideally, these required premia would decrease over time, and at some point be negative, meaning the DER bids are in fact more cost-effective, and require no return 'subsidy' for competitiveness with traditional solutions.

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[1] Rulemaking 14-10-003, *Amended Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge, September 1, 2016*, Attachment: "Revised Assigned Commissioner Proposal For Distributed Energy Resource Incentives," p.10.
[2] *Id.*

The proposed pilot certainly provides the opportunity to inaugurate the needed DER administrative institutions. Whether those institutions can also determine the exact impact of the return premium on IOU sourcing behavior remains to be seen. For this reason, CFC agrees with the Joint IOUs that a pilot is desirable,[3] and that its major value will be from providing the opportunity to introduce and develop the DER administrative institutions that will be required, whether or not a return premium is adopted as part of the eventual program.

b) *Would an incentive program such as that described in the attached proposal achieve the objective of promoting the cost-effective deployment of distributed energy resources? If not, why not?*

Certainly, encouraging DER resources by allowing the IOUs to earn a return premium on them should make selecting DERs a more favored utility option. For true cost-effectiveness, the program should be optimizing the integration of DERs into the IOU resource portfolio. By definition, artificially increasing a supply's cost is sub-optimal, so really the question answers itself: it is not cost-effective, per se.

Theoretically, the preferable adjustment would be to increase the calculated cost of fossil fuel energy sources (within the supply modelling), to account for the "environmental damage subsidy" those suppliers currently enjoy—and that gives those sources a financial advantage over renewables. Were a net societal benefit analysis part of the valuation, it would likely help DER competitiveness against wires solutions.

The CSFWG Report recommends the venue in which societal net benefits should be addressed:

> The societal net benefits attribute is planned to be leveraged from various other proceedings such as the DRP's LNBA methodology, and the IDER's demand side cost effectiveness. Rather than perform duplicative efforts within this Working Group, it is best for discussions regarding societal net benefits to take place as part of the IDER proceeding's efforts to address the Energy Division Staff's identified Phase 3 efforts to remedy the shortcomings in the current cost-effectiveness framework, as was proposed in the Cost Effectiveness Working Group's Final Report. It is appropriate to include any societal net benefit that can clearly be linked to the deployment of the proposed product.[4]

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[3] Joint Comments of Pacific Gas And Electric Company (U 39-E), San Diego Gas & Electric Company (U 902-M), and Southern California Edison Company (U 338-E) on the Assigned Commissioner's Ruling Introducing a Draft Regulatory Incentives Proposal, May 9, 2016, p.4.

[4] *Competitive Solicitation Framework Working Group, August 1, 2016 Report,*, p.45.

CFC considers that the pilot may be a good opportunity to explore incorporating societal benefits estimations into the valuation process, as those calculations may further enhance the attractiveness of DERs. A return premium linked to estimated DER societal benefits would be a more palatable proposition for consumers. For this reason, CFC recommends the pilot program leave open at least the possibility that it will explore incorporating societal benefits estimates into the valuation process.

Finally, the IOUs have said they see no need for the extra financial incentive,[5] and consumers do not want to fund supra-normal returns. The initial 3.0% pre-tax premium could well be higher than necessary. Therefore, the results of the pilot should inform parties whether (say) a 2.0% return premium would have led to the selection of the same number of DER projects. The pilot should produce the information needed for evaluating the "correct" return premium.

c) *Does the attached proposal appropriately balance the need to execute the pilot on a reasonable schedule and provide adequate oversight of implied cost to ratepayers?*

The Proposal's premise is that "...tackling these financial issues now will send the right signal to all interested observers that California is serious about this endeavor and expects to see results sooner rather than later."[6] Thus, one of the pilot program's objectives is simply accelerating the pace of introducing DERs. The trend toward lower costs for DER resources means they will become increasingly attractive as utility alternatives, even with no added financial incentive.[7] Whether the proposal appropriately balances the need for a pilot at a reasonable schedule versus the implied costs to consumers requires some estimate of the value the information obtained will provide, versus merely waiting for the market to arrive at a situation wherein DER alternatives are equally cost-effective to 'wires' solutions. Absent such estimate, the value balance for ratepayers is indeterminate.

Further, as originally conceived, the return premium targeted IOU investors on the premise they would not support the utilities opting for DERs without an added "carrot." Now, the purpose has apparently been re-imagined, emphasizing its potential for encouraging IOU personnel to more readily accept and promote DERs. It is now proposed that

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[5] Joint Reply Comments of Pacific Gas and Electric Company (U 39-E), San Diego Gas & Electric Company (U 902 M), and Southern California Edison Company (U 338-E) On The Assigned Commissioner's Ruling Introducing a Draft Regulatory Incentives Proposal, May 23, 2016, p.7.
[6] Proposal, p.1.
[7] National Renewable Energy Laboratory (NERL), "Photovoltaic System Pricing Trends Historical, Recent, and Near-Term Projections 2014 Edition," Slide #4.

> ...the funds received in the form of an incentive need not be distributed as earnings – they could be used by the IOUs to provide spot bonuses or other monetary incentives to their employees in distribution planning and related areas who are being asked to modify their traditional approach to their work. Indeed, given the many institutional and cultural barriers discussed above, this might prove to be even more effective than offering additional compensation to shareholders.[8]

This change of the "target market" for the financial incentive, the return premium, was quite surprising. At least, it gives the impression that the return premium has become a solution in search of a problem. At worst, it gives the impression that key utility personnel would somehow not fairly consider DER resources, without a personal financial reward. Hunting for a home for an orphaned financial incentive is not something CFC can endorse. CFC would rather see any internal barriers to the acceptance of DERs specifically identified, and programmatically addressed via other means—the DPAG and IPE being obvious candidates.

d) Does the pilot proposal effectively complement and leverage recommendations made by the Competitive Solicitation Framework Working Group (CSFWG)'s August 1, 2016 Report and the Distribution Resource Plan Demonstration C in Rulemaking 14-08-013?

First and foremost, the pilot provides the opportunity to launch the CSFWG recommended institutions of a DPAG and IPE. As CFC supports those institutions, their introduction as part of the pilot clearly complements and leverages the CSFWG recommendations.

Continuing the theme of our original program comments, CFC believes the best contribution the pilot can make is providing the opportunity for introducing and developing the DER-related oversight institutions and further advancing the associated modelling work. Regardless of whether the return premium is ultimately instituted, the administrative institutions and modelling required for evaluating and integrating DERs into the IOU supply portfolio as part of the pilot will be transferrable and useable for future program development. CFC supports the pilot primarily for its role in providing valuable experience for the program administrators, and allows the testing of models required for integrating DERs, whatever the eventual financial arrangements surrounding their future incorporation as supply resources.

The CSFWG Report identifies the need for a qualitative evaluation of some DER attributes. The pilot could be used to develop the necessary information and explore techniques that will allow program

[8] Proposal, p.5.

administrators to make qualitative evaluations. Further, program administrators should investigate whether and how the return premium might eventually be linked with, and affected by, qualitative attributes offered by a DER. Of particular interest to CFC is the exploration of societal net benefits associated with DERs. A significant impetus for encouraging DERs is their non-financial impacts (e.g., emissions reductions), so it seems entirely desirable to capture any such benefits as part of the evaluation calculations. Doing so as part of the pilot would be consistent with the objectives of Sec. 701.1(a), as it promotes both supply diversity and the recognition of societal benefits.

The NYPSC White Paper described the use of scorecards for capturing multi-dimensional project attributes and performance rankings. The scorecards can include both monetary and non-monetary performance results. Scorecards might allow the DER administrative institutions to report evaluations without disclosing specific, confidential information, whilst also incorporating project rankings for qualitative factors (e.g., net societal benefits). CFC recommends the development of DER scorecards within the pilot program, because, as the White Paper notes "[a] scorecard can also be used as a public, transparent measure of progress in attaining important outcomes."[9]

The efficiency of markets is premised on the assumption of participants having perfect information. As evident from the CSFWG Report, there remains a considerable cloistering of certain important information surrounding DERs.[10] Maximising the transparency of how system planning issues are resolved would promote utility efficiency—albeit, recognizing that a degree of information confidentiality is certainly reasonable.[11] The pilot should identify and test ways of promoting better project selection transparency; it should be a primary pilot program objective. The less transparent the supply/project selection process, the greater the likelihood that consumers will end up paying more than strictly necessary for their electricity.

e) Are there changes to the attached proposal that you see as essential and without which you would not support adoption of the proposal?

As stated above, CFC recommends the IOUs provide some estimate of the added administrative cost created by the program. Although CFC considers the cost estimates as important, the expected benefits of the opportunity the pilot provides for building the necessary administrative experience for any DER

[9] New York Public Service Commission, *Staff White Paper On Ratemaking And Utility Business Models, July 28, 2015 (NYPSC White Paper)*, p.54.
[10] *Competitive Solicitation Framework Working Group, August 1, 2016 Report, pp. 33,39,46,49,50.*
[11] Id, p.60.

integration program sufficiently justifies pursuing the proposed trial period—although, again, only if the costs of the pilot are reasonable.

III. GENERAL COMMENTS

The pilot program's objective is to test whether a financial incentive, in the form of what CFC considers a return premium, will make IOUs more likely to choose DERs. As a technical exercise, the proposal makes theoretical sense. However, CFC considers that the poor historical results thus far may merely reflect other factors. For example, Page 4 of the Proposal recounts how, in spite regulatory attempts to foster distributed generation, after thirteen years, there have been only a few instances in which DER has displaced traditional distribution system upgrades. Over that time frame, the cost of solar DERs decreased significantly. Even with no artificial financial incentive, DERs should become increasingly competitive alternatives for the IOUs.

Further, as observed by New York Commission Staff in their White Paper, metering technology has improved, providing vastly superior valuation information:

> Historically, both rates and DER compensation mechanisms have been designed in an environment of imperfect information, partly because residential and small commercial customer meters deliver incomplete information, and also because the allocation of costs to those customers depends on projections, averaging of costs, and categorizations of fixed and variable costs in a process that is imprecise by nature. Now, however, it is possible to gather, analyze, and make transparent information much more quickly, enabling the development and exchange of more precise value signals.[12]

Meanwhile, the cost of traditional solutions continues to increase. The PG&E 2017 General Rate Case estimated future electric distribution costs are increasing at least 2.3% per year.[13] In contrast, the cost of solar installations has been decreasing at least 4.0% per year.[14]

In combination, the continually decreasing cost of solar generation, and the greatly improved and much more readily-available customer consumption and valuation data, mean today's environment differs significantly from 2003. The limited success the traditional planning and resource selection approach has had may not be indicative of what will likely transpire in the foreseeable (even immediate) future. Considering the combined convergence rate, the plain economic advantage of wires solutions at

[12] *NYPSC White Paper, p.74.*
[13] PG&E 2017 General Rate Case, Exhibit PG&E-11, Tables 2-3 and 2-4, and Exhibit PG&E-12, Table 3-3.
[14] NERL, *op. cit*.

present may quite rapidly give way to rough cost equivalence, and then to a situation where DER resources are the preferred option, even without an incentive.

The market is changing. There is no better market solution *than* a market solution—and it looks like that is on its way, anyway.

IV. CONCLUSION

CFC thanks the Commission for consideration of the foregoing Comments.

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Respectfully Submitted,

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